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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,714	01/05/2001	David T. Berquist	55350US6B014	5169
32692	7590	06/29/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			BANGACHON, WILLIAM L	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	

2635

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/755,714	BERQUIST ET AL.	
	Examiner	Art Unit	
	William Bangachon	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-16,18,19,22-27 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-16,18,19,22-27 and 31-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/26/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/23/2005 has been entered.

Allowable Subject Matter

2. The indicated allowability of claims (10, 15, 18, 23, and 27) is withdrawn in view of the newly discovered reference(s) to USP 6,600,418 (Francis et al). Rejections based on the newly cited reference(s) follow.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 4-16, 18-19, 22-27, and 31-33 have been considered but they are not persuasive.

It is noted that the recitation "**portable RFID reader**" in claims 1, 10, 15, and 18 has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the

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claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

The Examiner respectfully traverses applicant's arguments that the references do not teach or disclose "a graphical representation of an interrogation area". In this case, Francis et al teach of RFID tags used on both the objects and the locations {col. 3, lines 5-6, col. 8, lines 19-27}. Figure 8 shows an exemplary flowchart of the interrogation process. Figure 9 shows a graphical representation of that process.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 4-16, 18, 19, 22-27, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,600,418 (Francis et al) in view of USP 4,827,395 (Anders et al).

In claims 1, 4, 18, and 31, Francis et al teach of a RFID reader/interrogator (Fig. 1: 100; Fig. 3: 200) for use in interrogating RFID tags (Fig. 1: 130, 140, 150; Fig. 3: 132, 142, 152; Fig. 7 610, 620, 630) associated with items of interest (i.e. target tag) {figures 8 and 9, col. 8, lines 19-22, col. 2, lines 61-65}, comprising:

- (a) an RFID interrogation source (120) {col. 7, lines 7-21};
- (b) an antenna (122) {col. 8, lines 24-27, col. 10, lines 40+};
- (c) a processor (Fig. 1: 160; Fig. 7: 660);
- (d) a display (170); and

(e) a user interface {col. 8, lines 3-5} in which a representation of an interrogation area {col. 11, lines 25-27} is shown on the display as a first graphical component of the user interface, and a representation of an item of interest is shown on the display as a second graphical component of the user interface relative to the first graphical component to indicate a location of the item of interest within the interrogation area, wherein the first graphical component is a bar (700), and the second graphical component is a portion of the bar (710) as shown in figure 9 {col. 11, lines 18-38}.

Although Francis et al does not disclose expressly “a portable RFID reader (interrogator)”, Francis et al teach of mounting the interrogator onboard a transport vehicle {col. 7, lines 9-15}. Obviously, installing the RFID reader/interrogator in a transport vehicle (110) makes the interrogator, **mobile**, which is analogous to being portable. Anders et al, in the same field of endeavor (RFID Tracking Systems), is cited to teach of a hand-held unit, as shown in figure 29, for the purpose of locating objects within an interrogation area {Anders, col. 36, line 36-61; col. 37, lines 11-26} wherein, the graphical depiction of the location of an object in the hand-held unit of Anders et al provides a visual representation to a user of where an object may be located. Obviously, the hand-held unit of Anders et al for locating and tracking objects is beneficial in the system of Francis et al because it can be made mobile by a person, making the interrogator easier to transport, to one of ordinary skill in the art..

In claim 5, the display may be activated by touch {Francis et al, col. 7, lines 14-15, col. 8, lines 7-9; Anders, col. 36, lines 48-61}.

In claim 6, the user interface further includes text associated with the item of interest may be presented on the display for observation by a user {Francis et al, col. 3, lines 14-24, col. 4, lines 62-67, col. 11, lines 35-38, col. 12, lines 15-26; Anders, col. 36, lines 48-61}.

In claim 7, at least one audio signal for providing information to the user related to an interrogated RFID tag {Francis et al, col. 3, lines 14-24, col. 4, lines 62-67, col. 11, lines 35-38, col. 12, lines 15-26; Anders, col. 36, lines 48-61}.

In claim 8, the audio signal is provided each time an RFID tag is interrogated {Francis et al, col. 3, lines 14-24, col. 4, lines 62-67, col. 11, lines 35-38, col. 12, lines 15-26; Anders, paragraph bridging cols. 36 and 37}.

In claim 9, the portable RFID reader of claim 7, wherein the audio signal is only provided when the RFID tag of an item meeting a predetermined criterion is interrogated {Francis et al, col. 10, lines 50+; Anders, paragraph bridging cols. 36 and 37}.

Claims 10 and 11 recites the combination of claims 1 and 9, and therefore rejected for the same reasons, wherein the predetermined criterion is "a specific RFID tag associated with an item of interest (i.e. target tag)" {Francis et al, col. 3, lines 5-32,

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lines 41-50}. In this case, in addition to the displayed graphical bar {Francis et al, col. 11, lines 25-37}, the processor may generate a signal, perceptible by the operator.

In claims 12 and 24, "at least one light for providing information to the user" {Francis et al, col. 3, lines 14-24, col. 4, lines 62-67, col. 11, lines 35-38, col. 12, lines 15-26; Anders, col. 36, lines 48-61}

In claims 13 and 25, clearly, there has to be at least one light that is illuminated each time an RFID tag is interrogated, as a visible indicator {Francis et al, col. 3, lines 14-24, col. 4, lines 62-67, col. 11, lines 35-38, col. 12, lines 15-26; Anders, paragraph bridging cols. 36 and 37}.

In claims 14 and 26-27, the portable RFID reader of claim 12, wherein the light is only illuminated when the RFID tag of an item meeting a predetermined criterion is interrogated {Francis et al, col. 3, lines 14-24, col. 4, lines 62-67, col. 11, lines 35-38, col. 12, lines 15-26; Anders, paragraph bridging cols. 36 and 37}.

Claim 15 recites the combination of claims 1 and 14, and therefore rejected for the same reasons, wherein the predetermined criterion is "a specific RFID tag associated with an item of interest (i.e. target tag)" {Francis et al, col. 3, lines 5-32, lines 41-50}. In this case, in addition to the displayed graphical bar {Francis et al, col. 11, lines 25-37}, the processor may generate a signal, perceptible by the operator.

In claim 16, the portable RFID reader of claim 15, wherein the criterion in response to which the at least one light is illuminated may be presented on the display for observation by a user {Francis et al, col. 3, lines 14-24, col. 4, lines 62-67, col. 11, lines 35-38, col. 11, lines 18-35; Anders, paragraph bridging cols. 36 and 37}.

Claim 17 recites the combination of claims 1-3 and therefore rejected for the same reasons.

In claim 19, the first graphical component is a group of icons, and the second graphical component is one of the icons of the series, in which the one icon is visually differentiated from the remainder of the icons {Francis et al, col. 11, lines 35-39}. Obviously, the round dot pattern is analogous to an icon to one of ordinary skill in the art.

Claim 22 recites the combination of claims 1 and 7-11 and therefore rejected for the same reasons.

Claim 23 recites the combination of claims 1 and 7 and therefore rejected for the same reasons. Although Francis et al teach of producing audio signals to inform the operator whether the correct object has been picked-up {col. 3, lines 14-24}, Francis et al does not disclose expressly "an audio signal produced at a desired interval to pace a

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user as to the speed at which RFID tags should be interrogated". However, the desired interval is not defined and therefore, as long as the audible signal of Francis et al is repeated, the claim limitation would have been obvious in the system of Francis et al, to one of ordinary skill in the art.

In claim 32, the measurable unit is a number of items {Francis et al, col. 9, lines 49-65}.

In claim 33, the RFID accounts for missing intermediate items between the item or location of interest and the item currently being interrogated when the indication is displayed {Francis et al, col. 10 lines 50-60}.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USP 5,963,134 (Bowers et al) is cited in that it teaches of an inventory system using articles with RFID tags in the environment of a library {see whole document}.

USP 5,729,697 (Schkolnick et al) is cited in that it teaches of a shopping inventory system using articles with RFID tags {see whole document}.

Examiner Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bangachon whose telephone number is (571)-272-3065. The examiner can normally be reached on 4/4/10.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (571)-272-3068. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9314 for regular and After Final formal communications. The examiner's fax number is (571)-273-3065 for informal communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

William L Bangachon
Examiner
Art Unit 2635

June 24, 2005

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